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## Roof heat-insulating waterproof slab

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### **Roof heat-insulating waterproof slab**

The present utility model belongs to roof covering technical field, and relates to a roof heat-insulating waterproof slab.

The prior roof heat-insulating waterproof techniques mainly utilize: 1. concrete block prefabricated slab, which has poor effect in heat-insulation and waterproofness, and has great weight; 2. means of oil felt, bitumen, stone, three felts four oils, or four felts five oils, etc., which have the disadvantages such as fussy and complex process, high cost, poor effect in heat-insulation and waterproofness, short lifetime of use and inconvenient maintenance.

The object of the present utility model is to design a roof slab having good effect in heat-insulation and waterproofness, light weight, low cost, convenient construction and long lifetime.

The technical solution used in the present utility model is to form a base slab using perlite and cement, and to coat or cover a resin layer on at least one surface of the base slab.

The present utility model has light weight and good effect in heat-insulation due to forming the base slab with perlite and cement; has good rainproof and waterproof effect and long lifetime due to designing a resin layer on the surface of the base slab; is convenient for construction due to using block structure; and has a waterproof effect as excellent as cast-in-place when building it on the roof with the cement mortar; and has low overall cost.

The structure features of the present utility model will be further explained in conjunction with the accompanying figures and examples.

Figure 1 shows a cutaway structure schematic view of one example of the present utility model.

Figure 2 shows a bottom view of one example of the present utility model.

Figure 3 shows a cutaway structure schematic view of a second example of the present utility model.

With reference to Figure 1 and 2, the present utility model includes a base slab 1

made of cement and perlite, a resin layer 2 coated on the surface of the base slab 1, and a ventilation slot 3, wherein the resin layer 2 uses 191 resin; and the ventilation slot 3 has a “+” shape and is configured on the bottom of the base slab 1.

With reference to the accompanying Figure 3, the present utility model includes a base slab 1, a resin layer 2 and a ventilation slot 3, wherein a glass fiber waterproofing 4 is arranged within the resin layer 2, and the glass fiber waterproofing 4 can be configured to have many layers with the resin being coated between the two adjacent layers.

Claims:

1. A roof heat-insulating waterproof slab with a base slab, characterized in that the base slab is formed with the mixture of cement and perlite, and a resin layer is applied on at least one surface of the base slab.

2. The roof heat-insulating waterproof slab of claim 1, characterized in that a ventilation slot is configured on the bottom of the base slab.

3. The roof heat-insulating waterproof slab of claim 2, characterized in that the ventilation slot has a “+” shape.

4. The roof heat-insulating waterproof slab of claim 1, characterized in that at least one layer of glass fiber waterproofing is configured within the resin layer.

5. The roof heat-insulating waterproof slab of claim 4, characterized in that the glass fiber waterproofing layer is configured to have many layers with the resin being coated or covered between the two adjacent layers.

## Abstract

The present utility model provides a roof heat-insulating waterproof slab for the roof covering technical field, which is mainly characterized by forming a base slab with cement and perlite and constructing a resin layer on the top surface of the base slab, thus which has the advantages of light weight, good effect in heat-insulation and waterproofness, convenient construction, long lifetime and low cost, and has very obvious advantages compared with the prior cement concrete slab as well as the technique of oil felt, bitumen and stone.

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E04D 3/35

## [12] 实用新型专利说明书

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[22] 申请日 2000.5.24 [24] 颁证日 2001.4.19  
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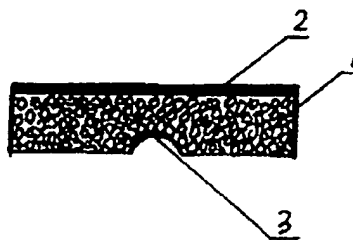
[21] 申请号 00234957.4  
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权利要求书 1 页 说明书 2 页 附图页数 1 页

[54] 实用新型名称 屋顶隔热防水板

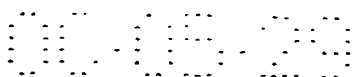
[57] 摘要

本实用新型为屋面覆盖层技术领域提供了一种屋顶隔热防水板,其主要特点是以水泥、珍珠岩制成基板,在基板的上表面设置树脂层,因此其重量轻、隔热防水效果好、施工方便、寿命长、造价低,同现有水泥混凝土板及油毡、沥青、石子技术相比具有非常明显的优点。



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## 权 利 要 求 书

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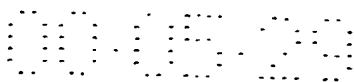
1、一种屋顶隔热防水板，具有基板，其特征是基板用水泥、珍珠岩混合制成，在基板的至少一个表面设有树脂层。

2、如权利要求1所述的一种屋顶隔热防水板，其特征是在基板的底部设有通气槽。

3、如权利要求2所述的一种屋顶隔热防水板，其特征是通气槽为“+”字形。

4、如权利要求1所述的一种屋顶隔热防水板，其特征是在树脂层内至少设有一层玻璃纤维防水布层。

5、如权利要求4所述的一种屋顶隔热防水板，其特征是玻璃纤维防水布层设置为多层，相邻两层间敷或覆有树脂。



## 说 明 书

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### 屋顶隔热防水板

本实用新型属于屋面覆盖层技术领域，是一种屋顶隔热防水板。

现有屋顶隔热防水技术主要采用：1、混凝土块件预制板，隔热、防水效果差，重量大；2、油毡、沥青、石子、三毡四油或四毡五油等方式，工艺繁琐复杂、成本高、隔热防水效果差、使用寿命短、维修不便。

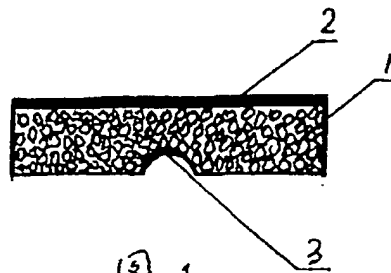
本实用新型的目的是设计一种隔热防水效果好、重量轻、造价低、施工方便、寿命长的屋顶板。

本实用新型采取的技术方案是采用珍珠岩、水泥制成基板，在基板的至少一个表面上敷或覆设有树脂层。

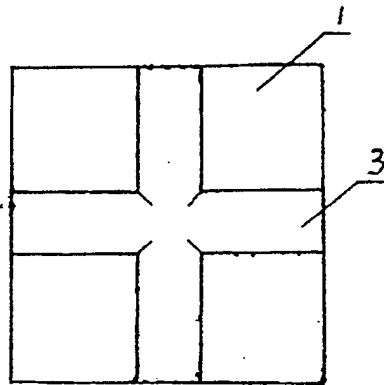
本实用新型由于采用水泥、珍珠岩制作基板，因此重量轻、隔热效果好，又由于在基板的表面上设有树脂层，因此，防雨防水效果好、寿命长，采用板块结构，便于施工，当用水泥砂浆将其砌在屋顶时，其防水效果如同现浇一样好，其总体造价低。

结合附图及实例进一步介绍本实用新型的结构特征。

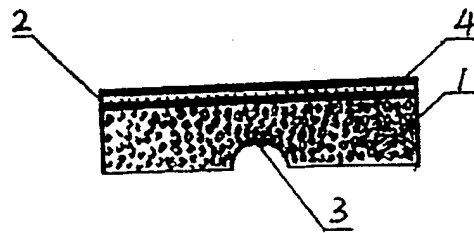
图1表示本实用新型实例之一的剖示结构示意图。



(图) 1



(图) 2



(图) 3

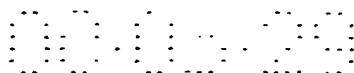


图2表示本实用新型实例之一的仰示图。

图3表示本实用新型实例之二的剖示结构示意图。

参见图1、图2，本实用新型包括用水泥、珍珠岩制成的基板1，敷在基板1表面上的树脂层2、通气槽3；树脂层2采用191树脂，通气槽3为“+”字形设在基板1底部；

参见附图示3，本实用新型包括基板1、树脂层2、通气槽3，在树脂层2内设有玻璃纤维防水布4，玻璃纤维防水布4可设多层，相邻两层间敷有树脂。